

BEFORE THE DEPARTMENT
OF NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

* * * * *

IN THE MATTER OF THE APPLICATION)	
FOR BENEFICIAL WATER USE PERMIT)	NOTICE OF OMISSION
NO. 26751-S40A BY REUBEN PITSCH)	

* * * * *

A review of the March 29, 1985 Final Order in the above-entitled matter has shown that the Final Order omits a description of the period of use for the permit. Therefore, the period of use for which the Applicant applied is hereby added to the language of the Final Order, to make it consistent with the Application, Department action, and the Permit which will issue in this matter.

The Order therefore expressly is amended to contain the period of use information as follows:

FINAL ORDER

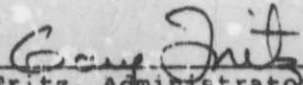
Subject to the terms hereof, Application for Beneficial Water Use Permit No. 26751-s40A is hereby granted to Reuben Pitsch to appropriate up to 60 acre-feet annually from an unnamed tributary of Big Coulee Creek for the irrigation of 50 acres more or less located in the NW $\frac{1}{4}$ of Section 36, Township 05 North, Range 19 East, in Golden Valley County. The point of diversion shall be a certain 20 acre-foot reservoir in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 36, Township 05 North, Range 19 East, in Golden Valley County. The period of use shall be April 1 to September 30, inclusive, of each

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year. The reservoir may be filled, refilled, and successively filled until up to 60 acre-feet have been captured therein. The priority date for the rights reflected herein shall be February 15, 1980, at 1:30 p.m.

The Permit conditions specified in the March 29, 1985 Final Order remain unchanged.

DONE this 24 day of April, 1985.



Gary Fritz, Administrator
Water Resources Division
Department of Natural Resources
and Conservation
32 South Ewing, Helena, MT 59620
(406) 444 - 6605

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AFFIDAVIT OF SERVICE
FILING

STATE OF MONTANA)
) ss.
County of Lewis & Clark)

Donna K. Elser, an employee of the Montana Department of Natural Resources and Conservation, being duly sworn on oath, deposes and says that on April 15, 1985, she deposited in the United States mail, first class mail, an order by the Department on the Application by Reuben Pitsch, Application No. 26751-s40A, for an Application for Beneficial Water Use Permit, addressed to each of the following persons or agencies:

1. Reuben Pitsch, Ryegate, Montana 59074
2. Harry Van Der Voort, Ryegate, Montana 59074
3. DNRC, c/o Engineering Bureau, 32 South Ewing, Helena, Montana 59620
4. 79 Ranch, Inc., Ryegate, Montana 59074
5. Roy W. Wilson, Lavina, Montana 59046
6. Sam Rodriguez, Water Rights Bureau Field Office, Lewistown, Montana (inter-departmental mail)
7. Gary Fritz, Administrator, Water Resources Division (hand deliver)

DEPARTMENT OF NATURAL RESOURCES AND
CONSERVATION

by Donna Elser

STATE OF MONTANA)
) ss.
County of Lewis & Clark)

On this 15th day of April, 1985, before me, a Notary Public in and for said state, personally appeared Donna Elser, known to me to be the Hearings Recorder of the Department that executed this instrument or the persons who executed the instrument on behalf of said Department, and acknowledged to me that such Department executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

Judy Bohu
Notary Public for the State of Montana
Residing at Montana City, Montana
My Commission expires 3-17-85

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*Gary Metz -
For your file*

BEFORE THE DEPARTMENT
OF NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

* * * * *

IN THE MATTER OF THE APPLICATION)
FOR BENEFICIAL WATER USE PERMIT)
NO. 26751-s40A BY REUBEN PITSCHE)

FINAL ORDER

* * * * *

The time period for filing exceptions to the Hearing Examiner's Proposal for Decision has expired. A timely exception was received from Objector 79 Ranch, Inc., by and through counsel Thomas Ask. For the reasons stated below, and after having given the exception full consideration, the Department accepts and adopts the Findings of Fact of the Hearing Examiner as contained in the August 26, 1984, Proposal for Decision, and incorporates them herein by reference. The Department also accepts and adopts Conclusions of Law 1-3 and 5-7 as set forth in the Proposal, and accepts and adopts Conclusion of Law 4 as amended herein, pursuant to MCA § 2-4-621(3), which states in pertinent part, "The agency may adopt the proposal for decision as the agency's final order. The agency in its final order may reject or modify the conclusions of law and interpretation of administrative rules in the proposal for decision ...".

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AMENDED CONCLUSION OF LAW

The Hearing Examiner's proposed Conclusion of Law Number 4 reads as follows: "The use of up to 50 acre-feet per year is a reasonable estimate of the quantity of water required for the Applicant's use, and the use of such quantity will not result in the waste of the water resource." (Citation omitted.) The Department does not reject the substance of this proposed conclusion. However, a review of the Proposal in this matter makes it clear that the volume amount should read "60 acre-feet per year", rather than "50". (See Finding of Fact Number 4, page 8 of the Memorandum to the Proposal, and the Application in this matter.) Conclusion of Law Number 4 therefore is expressly amended to reflect the intent of the Application and the Proposal for Decision in this matter: "The use of up to 60 acre-feet per year is a reasonable estimate of the quantity of water required for the Applicant's use, and the use of such quantity will not result in the waste of the water resource. See Worden v. Alexander, 108 Mont. 89, 88 P.2d 23 (1939)."

AMENDED ORDER

The proposed Order in this matter repeats the error discussed above in regard to Conclusion of Law Number 4: although the first sentence of the proposed Order correctly states the Applicant's appropriation amount as 60 acre-feet, errors in the third sentence of the Order and in proposed permit condition (2) have altered the figure to 50 acre-feet.

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The Order in this matter has been amended to uniformly state the volume amount as 60 acre-feet, to correctly reflect the intent of the Application and the Proposal for Decision in this matter, and to render the Order internally consistent.

In addition, the words "20 acre-foot" have been added to the second sentence of the proposed Order in order to clarify the description of the diversion in this matter, and the word "successfully" in the third sentence of the Order has been corrected to read "successively".

RESPONSE TO EXCEPTION

The Department hereby responds to the exception made by Objector 79 Ranch, Inc. to the Proposal for Decision in this matter.

Objector's Exception is based on testimony by Eugene Schaff that use of water from the dam will reduce the amount of seepage through the dam that is available for downstream use. The exception states that Mr. Schaff further testified "that applicant Pitsch pumped from the dam in 1980 and during this time the water flowing below the dam was substantially reduced."

(Objector's Exception, received September 21, 1984, p. 2).

"Objector maintains that the Hearing Officer overlooked and ignored said testimony", and that Findings of Fact 10, 12, and 13 and Conclusions of Law 6 and 7 should be deleted.

A review of the tapes recorded at the hearing in this matter indicates that Mr. Schaff did not testify that the flow in the creek was "substantially reduced" during the Applicant's pumping in 1980. Rather, in response to the question "Did you notice any

difference in the flow of the creek below the dam during that time?", Mr. Schaff stated, "Well, yes, there was bound to be some, I suppose--because--I maintain that if you got pressure behind that dam you're going to have more water coming back down through there. I'm no engineer or nothing, but I would say it would cut it down considerably." This testimony makes it apparent that Mr. Schaff was testifying on the basis of his suppositions that there was a reduction in creek flow, and the reasons therefore, rather than from personal knowledge or observation.

Even assuming arguendo that Mr. Schaff's suppositions are correct, however, and that pumping from the dam will result in less pressure and hence less seepage, there is no basis for amending the Findings of Fact and Conclusions of Law. As the Hearing Examiner discussed in the Memorandum to the Proposal for Decision in this matter, the other appropriators are not entitled to more water than the natural flow in the drainage. If the amount of water which would be available to the downstream appropriators if the dam did not intercept it is still available to those appropriators, they have no basis for complaint. The permit conditions have been carefully designed to ensure this outcome.

To follow the Objector's line of reasoning, and require the Applicant to leave all the water in the dam so that the resultant water pressure possibly may cause more seepage to be available for downstream appropriators, undermines the state's express encouragement of development of water storage facilities (see MCA

§85-2-101 (3)): it would allow the Objectors to claim the fruits of the Applicant's foresight in storing flood waters, and would bar the Applicant from using a water source that is the result of his own time and expenditure in creating and maintaining the dam. Such an inequitable result is not supported by statute or by case-law. (See Memorandum, Proposal for Decision).

Therefore, based upon the Findings of Fact and Conclusions of Law, and all files and records in this matter, the Department makes the following:

FINAL ORDER

Subject to the terms hereof, Application for Beneficial Water Use Permit No. 26751-s40A is hereby granted to Reuben Pitsch to appropriate up to 60 acre-feet annually from an unnamed tributary of Big Coulee Creek for the irrigation of 50 acres more or less located in the NW $\frac{1}{4}$ of Section 36, T5N, R19E, in Golden Valley County. The point of diversion shall be a certain 20 acre-foot reservoir in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 36, T5N, R19E, in Golden Valley County. The reservoir may be filled, refilled, and successively filled until up to 60 acre-feet have been captured therein. The priority date for the rights reflected herein shall be February 15, 1980, at 1:30 p.m.

This Permit is issued subject to the following express terms, conditions, restrictions, and limitations:

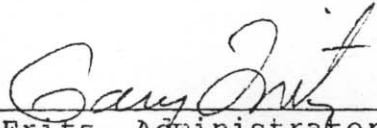
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- 1) Provided that any rights evidenced herein are subject to all prior and existing rights, and to any final determination of such rights as provided by Montana law. Nothing herein shall be construed to authorize diversions into storage to the detriment of senior appropriators.
- 2) In no event shall more than 60 acre-feet be stored or detained in any annual period. Any waters that are carry-over waters from a previous year's diversions shall be considered part and parcel of the current year's appropriative limit.
- 3) No diversions for storage shall be made during the months of July and August, except in accordance with paragraph 4 hereof.
- 4) Diversions into storage are authorized notwithstanding shortages to senior rights so long as outflow from the reservoir is equal or greater than inflow to the reservoir. The Applicant shall install and maintain Parshall flumes or their equivalent above and below the reservoir.

NOTICE

The Department's Final Order may be appealed in accordance with the Montana Administrative Procedures Act by filing a petition in the appropriate court within thirty (30) days after service of the Final Order.

DONE this 29th day of March, 1985.



Gary Fritz, Administrator
Water Resources Division
Department of Natural Resources
and Conservation
32 South Ewing, Helena, MT 59620
(406) 444-6605

CASE #26751

AFFIDAVIT OF SERVICE
MAILING

STATE OF MONTANA)
) ss.
County of Lewis & Clark)

Donna K. Elser, an employee of the Montana Department of Natural Resources and Conservation, being duly sworn on oath, deposes and says that on April 1, 1985, she deposited in the United States mail, First Class mail, an order by the Department on the Application by Reuben Pitsch, Application No. 26751-s40A, for an Application for Beneficial Water Use Permit, addressed to each of the following persons or agencies:

1. Reuben Pitsch, Ryegate, Montana 59074
2. Harr Van Der Voort, Ryegate, Montana 59074
3. DNRC, c/o Engineering Bureau, 32 South Ewing, Helena, Montana 59620
4. 79 Ranch, Inc., Ryegate, Montana 59074
5. Roy W. Wilson, Lavina, Montana 59046
6. Sam Rodriguez, Water Rights Bureau Field Office, Lewistown, Montana (inter-departmental mail)
7. Gary Fritz, Administrator, Water Resources Division (hand deliver)

DEPARTMENT OF NATURAL RESOURCES AND
CONSERVATION

by Donna Elser

STATE OF MONTANA)
) ss.
County of Lewis & Clark)

On this 1st day of April, 1985, before me, a Notary Public in and for said state, personally appeared Donna Elser, known to me to be the Hearings Recorder of the Department that executed this instrument or the persons who executed the instrument on behalf of said Department, and acknowledged to me that such Department executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

Jim P. Gilman
Notary Public for the State of Montana
Residing at Helena, Montana
My Commission expires 1-21-1987

CASE # 26751

BEFORE THE DEPARTMENT
OF NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

* * * * *

IN THE MATTER OF THE APPLICATION)
FOR BENEFICIAL WATER USE PERMIT) PROPOSAL FOR DECISION
NO. 26751-s40A BY REUBEN PITSCHE)

* * * * *

Pursuant to the Montana Water Use Act and the contested case provisions of the Montana Administrative Procedures Act, a hearing in the above-entitled matter was held in Roundup, Montana.

STATEMENT OF THE CASE

The present application seeks 400 gpm up to 60 acre feet per year out of a tributary to Big Coulee Creek for new sprinkler irrigation of 60 acres more or less in Golden Valley County. The diversion works are to consist of a dam with a capacity of 20 acre feet.

Timely objections to the instant application were filed by Roy Olson, the Department of Natural Resources and Conservation, 79 Ranch, Inc. and Harry Van der Voort. All of these objectors appeared except for Mr. Olson.

The pertinent portions of application were duly and regularly published for three successive weeks in the Times-Clarion, a newspaper of general circulation printed and published in Harlowton, Montana.

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FINDINGS OF FACT

1. The Department has jurisdiction over the subject matter herein, and over the parties hereto.
2. The Applicant has a bona fide intent to appropriate water. The Applicant is not attempting to speculate in the water resource.
3. The use of the water claimed herein would materially benefit the Applicant by the production of grain and hay.
4. The use of 60 acre feet per year is a reasonable estimate of the quantity of water required for the Applicant's purposes.
5. The diversion scheme consists of a dam with a 20 acre foot capacity. The water behind the dam is presently used for stock watering. The dam is presently equipped with a trickle tube and outlet tubes.
6. The Applicant intends to irrigate 50 acres.
7. The water will be applied to use by means of a pump and sprinkler system.
8. The means of diversion proposed by the Applicant are customary and adequate for his purposes, and said means will not result in the waste of the water resource.
9. There are virtually no years where excess water is available in Big Coulee Creek in July or August. There are no unappropriated waters available during such times, except as provided for in Finding of Fact 13.
10. At times of high flow resulting from spring rainfall or snowmelt, there are unappropriated waters available for the Applicant's use in the quantities requested in all months within the time of use proposed except for July and August.

11. Diversions from the source in July or August would adversely affect prior appropriators, except as provided in Finding of Fact 13.

12. Subject to the Applicant's junior priority, diversions in the months except for July or August will not adversely affect other appropriators.

13. The seepage from the existing reservoir is at least at times equal to or greater than the inflow of the source of supply, even during the dry months of July and August. However, unappropriated water exists only at such times that outflow is greater than inflow during such dry periods. With an appropriate management plan, diversions of such flows during dry months would not adversely affect other appropriators.

CONCLUSIONS OF LAW

1. The Department has jurisdiction over the subject matter herein, and over the parties hereto. MCA 85-2-301 et seq.

2. The Applicant has a bona fide intent to appropriate water. See Toohey v. Campbell, 24 Mont. 13, 60 P. 396 (1900).

3. The Applicant's proposed use is a beneficial one. MCA 85-2-102(2).

4. The use of up to 50 acre feet per year is a reasonable estimate of the quantity of water required for the Applicant's use, and the use of such quantity will not result in the waste of the water resource. See Worden v. Alexander, 100 Mont. 89, 88 P.2d 23 (1939).

5. The Applicant's proposed diversion works are reasonable, customary and adequate for their intended purposes. See States ex rel. Crowley v. District Court, 108 Mont. 89, 88 P.2d 23 (1939).

6. There are unappropriated waters available to the Applicant at times of high flow which may occur except in the months of July and August. During low flow periods, unappropriated water exists in the source of supply only when outflow from the reservoir is equal to or exceeds inflow.

7. No adverse affect will accrue to prior appropriators where diversions are made during periods of high flow. No adverse affect will accrue to prior appropriators at periods of low flow if outflow from the reservoir is at least equal to inflow, provided that measuring devices are installed and maintained to record this event.

WHEREFORE, based on these findings of fact and conclusions of law, the following proposed order is hereby issued.

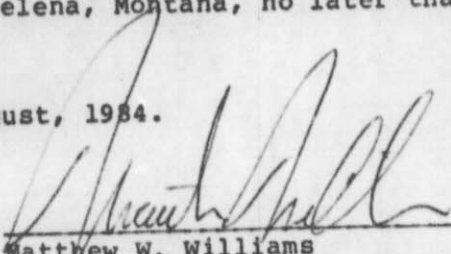
Subject to the terms hereof, Application for Beneficial Water Use Permit No. 26751-s40A is hereby granted to Reuben Pitsch to appropriate up to 60 acre feet annually for the irrigation of 50 acres more or less located in the NW $\frac{1}{4}$ of Section 36, T5N, R19E, in Golden Valley County. The point of diversion shall be a certain reservoir in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 36, T5N, R19E, in Golden Valley County. The reservoir may be filled, refilled and successfully filled until up to 50 acre feet have been captured therein. The priority date for the rights reflected herein shall be February 15, 1980 at 1:30 p.m.

- 1) Provided that any rights evidenced herein are subject to all prior and existing rights, and to any final determination of such rights as provided by Montana law. Nothing herein shall be construed to authorize diversions into storage to the detriment of senior appropriators.
- 2) In no event shall more than 50 acre feet be stored or detained in any annual period. Any waters that are carryover waters from a previous year's diversions shall be considered part and parcel of the current year's appropriative limit.
- 3) No diversions for storage shall be made during the months of July and August, except in accordance with paragraph 4 hereof.
- 4) Diversions into storage are authorized notwithstanding shortages to senior rights so long as outflow from the reservoir is equal to or greater than inflow to the reservoir. The Applicant shall install and maintain Parshall flumes or their equivalent above and below the reservoir.

NOTICE

Exceptions or objections to this Proposal for Decision must be filed with Gary Fritz, Department of Natural Resources and Conservation, 32 South Ewing, Helena, Montana, no later than 20 days after service hereof.

DATED this 26th day of August, 1984.


Matthew W. Williams
Department of Natural Resources
and Conservation
32 South Ewing
Helena, Montana 59620
406/444-6698

AFFIDAVIT OF SERVICE

STATE OF MONTANA)
) ss.
County of Lewis & Clark)

Mary Bertagnolli, Legal Secretary of the Montana Department of Natural Resources and Conservation, being duly sworn on oath, deposes and says that on September 5th, 1984, she deposited in the United States mail, a PROPOSAL FOR DECISION by the Department on the Application by REUBEN PITSCH, Application No. 26751-s40A, for an Application for Beneficial Water Use Permit, addressed to each of the following persons or agencies:

1. Reuben Pitsch, Ryegate, Montana 59074
2. Harry Vander Voort, Ryegate, Montana 59074
3. DNRC, c/o Engineering Bureau, 32 South Ewing, Helena, Montana 59620
4. 79 Ranch, Inc., Ryegate, Montana 59074
5. Roy W. Wilson, Lavina, Montana 59046
6. Thomas Ask, Attorney at Law, Roundup, Montana 59072
6. Lewistown Field Office
7. Matt Williams, Hearings Examiner, Helena, Montana (hand deliver)

DEPARTMENT OF NATURAL RESOURCES AND
CONSERVATION

by Mary Bertagnolli

STATE OF MONTANA)
) ss.
County of Lewis & Clark)

On this 5th day of September, 1984, before me, a Notary Public in and for said state, personally appeared Mary Bertagnolli, known to me to be the Legal Secretary of the Department that executed this instrument or the persons who executed the instrument on behalf of said Department, and acknowledged to me that such Department executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

Donald H. McArthur
Notary Public for the State of Montana
Residing at Helena, Montana
My Commission expires 12/31/85

MEMORANDUM

Central to the issue of the availability of unappropriated water is the Department's study of water availability in the Musselshell drainage. The report premises the yield of the basin on the records of four USGS gauging stations along the Musselshell. The interstitial areas between the stations break down the Musselshell for purposes of analysis. Thus, the study independently analyzes the Musselshell from Ryegate to Roundup; from Roundup to Musselshell, from Musselshell to Mosby, and then from Mosby to Fort Peck Reservoir. (Since there are no significant tributaries below Mosby, the yield of that subarea is equivalent to the flows measured at the upstream gauge plus return flow from upstream irrigation.) This data forms the predicate for the estimation of the gross quantity of water available on the Musselshell mainstem for irrigation.

Existing demand on that supply is derived and extrapolated from diverse sources. Total acres already devoted to irrigation was premised on a study by DNRC, by data from previous surveys conducted pursuant to statutory authority by State officials, by statements of claim filed in the present adjudication process, and by permits issued by DNRC. Acreage demand was translated to water requirements by data compiled by DNRC on its Delphia-Melstone Project indicating an average annual diversion requirement of 3.73 acre feet per acre. The product reflecting total demand at the headgate in the Musselshell was factored cut to indicate the location of the respective portions of that demand at the four USGS gauging stations.

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The impacts of agricultural demand on the amount and timing of aggregate physical supply were also accounted for by calculations estimating the total quantity of return flow available from upstream irrigations. This total quantity of return flow was subjected to further calculations that estimated the pattern or timing of such return flow across the summer months in order to segregate only that return that could in fact be reused by downstream agriculture during the irrigation season. This calculation also accounted for such return flow during respective months of the agricultural season, so that the availability of water across the irrigation season could be estimated. Finally, this component reflecting return flow variables was also factored out such that its influence is separately accounted for at each of the respective USGS gauges by adjusting the acre foot per acre requirement downward to account for its dampening effect.

RELEVANCE OF THE REPORT

The report is and does not assume to be more than an estimate of water availability on the mainstem of the Musselshell. As such, it represents a superlative effort in defining the parameters of supply for new water uses, and is indispensable for any user concerned with the economics of his venture.

The vagaries endemic in the estimates it is bottomed on must be kept in mind when using it for particular purposes, however. The inquiry insofar as "unappropriated water" and "adverse affect to prior appropriators" is concerned is whether or not the

Applicant's diversions would for all practical purposes always have to be curtailed through all or part of the intended period of use because of downstream demand. As exhaustively explained In re Monforton, Dept. Order, the permit process does not supplant the need for the regulation of rights according to their priorities, but merely blocks those uses for which there is never, as a practical matter, any unappropriated water. The Applicant is otherwise entitled to take water, subject to his junior priority, and it is for the Applicant to decide whether the amount of water actually available justifies the expense.

With this purpose in mind, an analysis of the salient assumptions made in the report reveals the materiality of the conclusions for the disposition herein. For example, the 3.73 acre feet per acre estimated by the report for uses in the Musselshell may be more or less representative of water demand at any particular place. Since lawful demand is keyed to the amounts required for beneficial use, and since those factors that describe beneficial use are largely site specific, see Warden v. Alexander, 108 Mont. 208, 90 P.2d 160 (1939), actual demand on the Musselshell answers to the estimated demand only if the site-specific factors across the basin are more or less average of the site-specific factors in the data base that prompted the figures.

Since the record is insufficient to quantify the range of error in other than a most general way, it is enough to forecast the effect of error for present purposes. If the estimate is too high, it is likely that the results overstate water supply in

late summer months. This is so since the margin of error is more likely to be found in such things as ditch loss or losses attendant to management as compared to actual crop requirements. Since these demands at the headgate do not tend to consume a quantity of water, they provide the nucleus for return flow via seepage that augments the natural flow of the Musselshell in late summer months. Overstating these demands at the headgate thus overstates available supply in late summer months. Since it is clear that shortages in the Musselshell occur exclusively in the late summer months on a chronic basis, the fact that average annual demand may be too high is not prejudicial to the Applicant. Even an inflated demand across the dry summer months is un consequential in few of the marked character of the deficits in many years.

If the average annual demand is lower than postulated, the net effect on the results of the study is to lessen supply and demand during the critical summer months. Again, however, such an error would not be material for present purposes, as the marked character of the deficits during many years in these summer months mute the significance of any such error.

The other salient assumptions made in the report collectively probably tend to significantly overstate demand and thus understate available unappropriated water. For example, the report gears agricultural consumption on the consumptive needs of alfalfa. Alfalfa consumes a greater percentage of water than practically any other crop. Since it is unrealistic to assume that alfalfa is the only crop cultivated in the Musselshell Drainage, crop consumption has been overstated.

The irrigated acreage assumed in the report probably also leads to a significant over estimation of water demand. The report uses the best estimates available as to total amount of land irrigated in the Musselshell. However, the report assumes, as it must, that all of these acres are irrigated in every year. This is an unrealistic assumption, however, insofar as it probably does not track with actual agricultural management. Certainly some measure of agricultural land in this drainage is allowed to lie fallow in any given year, even if this is not a customary practice for any given unit. Junior appropriators are entitled to use the water resource when senior users have no present need for the water embraced in their appropriation. Cook v. Hudson, 110 Mont. 263, 103 P.2d 137 (1940), Quigley v. McIntosh, 88 Mont. 103, 290 P. 260 (1930). Ignoring this central doctrinal feature of the appropriation doctrine over such a wide drainage will tend to significantly distort the amount of unappropriated water at any given time. In correcting for this distortion in reaching decisions based on this report, it must also be noted that the fact of such less intensive irrigation will also tend to overstate supply in the middle and late summer months. Because less acreage will in fact be irrigated in any given year, there will be less return flow via seepage that will augment the Musselshell during such times.

APPLICATION OF REPORT

The result of the report is to premise water availability on certain flows at the USGS gauge at Roundup. The report shows that 8 out of 10 years, the flows in the Musselshell are sufficient to fulfill projected demand in May and June. In the other years, flows only sporadically answer to projected demand. However, because the demand is probably overstated at any given time for such months, no specific condition is appended hereto limiting diversions. Storage of water to be encouraged in this arid State, see Fonich v. Johnson, 77 Mont. 232, 250 P. 963 (1926), and because the available supply is already close to projected demand, there is too great a danger that a limitation premised on such flows will simply lead to waste. Since the Department's proffered conditions are pegged to the report, they are denied.

The report's conclusions with respect to the remainder of the irrigation season need not be specifically tested herein. The demand on Big Coulee is by itself sufficient to prohibit diversions during July and August, unless the Applicant installs and maintains measuring devices that will assure no water is being detained unless outflow from the reservoir is at least equal to inflow. If the latter limitation is observed, users on the Musselshell are protected for the same reasons users on Big Coulee are. See discussion, infra.

BIG COULEE

The evidence herein shows unmistakably that existing uses on Big Coulee Creek demand virtually all of the flow thereof in summer months for stockwatering and irrigation. Available water is limited to high flow periods prompted by spring showers or snow melt runoff. By the USGS gauging records, such runoffs exceeding demand will virtually never occur in July and August.

However, the Examiner believes the testimony indicating that the outflow from the reservoir accruing from the reservoir via seepage may at least at times equal or exceed the inflow in this small tributary. Downstream appropriators are entitled to only the natural flow of the drainage; that is, the amount of inflow to the reservoir. Beaverhead Canal Co. v. Dillon Electric Light & Power Co., 34 Mont. 135, 85 P. 880 (1906); Kelly v. Granite Bi-Metallic Consolidated Min. Co., 41 Mont. 1, 108 P. 785 (1910).

If the outflow is at least equal to the inflow, no senior right is prejudiced even if that senior right is water short. Waters stored in priority are not subject to the all of senior rights; such waters not otherwise being available except for the expense and effort of the storage appropriator. Federal Land Bank v. Morris, 112 Mont. 445, 116 P.2d 1007 (1941).

If the Applicant desires to avail himself of diversions of base flow where outflow is at least equal to inflow, however, it is appropriate to demand measuring devices to assure downstream users that their rights are not being tread upon. "Eyeballing" flows with a view to their measurement is fraught with errors even for the most seasoned water manager. Thus, the Applicant

must elect to install and maintain Parshall flumes or their equivalent above and below his reservoir to justify diversions under such a scheme. So long as water in the lower weir is at least equal to water in the upper weir, the Applicant may continue to divert into storage and use such waters, the result being an "exchange" not diminishing the natural flow. See Brennan v. Jones, 101 Mont. 550, 55 P.2d 697 (1936); Perkins v. Kramer, 121 Mont. 595, 198 P.2d 475 (1948). This would allow the Applicant to extend his available supply for late season irrigation, as seepage losses would not frustrate the salvage of waters across the summer months.

QUANTITY

The Applicant herein has been granted up to 60 acre feet annually, notwithstanding that the Applicant has reduced his place of use by 10 acres. Even 60 acre feet is a modest quantity for the Applicant's needs.

It is evident that in many years the Applicant's claim herein will not answer to his agricultural need. Appropriations are measured "at the headgate," Wheat v. Cameron, 64 Mont. 494, 210 P. 761 (1922), which is to say that seepage and evaporative losses are charged against the appropriative limit. The 60 acre foot claim made herein is only barely adequate to answer to a grain crop. Seepage and evaporation will undercut this minimal quantity. However, provision for more water cannot be made herein. The announced intentions of the appropriator limit the measure of the appropriation. Toohy v. Campbell, 24 Mont. 13, 60 P. 396 (1900), Powers v. Switzer, 21 Mont. 523, 55 P. 32

(1893), Bailey v. Tintinger, 45 Mont. 154, 122 P. 575 (1912), and the legislature has otherwise explicitly provided that the claimed quantity is the maximum amount that may be authorized. MCA 85-2-312. Therefore, additional quantities must await further applications.

Finally, flow rates have been ignored in the disposition of this matter. When an Applicant seeks a right to store water in an onstream reservoir, it is apparent that when his right is otherwise in priority diversions into storage will equal the flow rate of the source of supply. The 400 gpm figure appearing in the application reflects in context the maximum draw that will be made from the waters previously stored. As such, a flow rate is immaterial to other appropriators, as a junior appropriator has a right to use waters stored in priority even if senior rights are unfulfilled at the time of use. Federal Land Bank v. Morris, supra.